Congress of the United States Washington, DC 20515

October 27, 2021

The Honorable Nancy Pelosi Speaker of the House United States House of Representatives Washington, DC 20515

The Honorable Charles Schumer Senate Majority Leader United States Senate Washington, DC 20510

Dear Speaker Pelosi and Leader Schumer:

We have a once-in-a-generation opportunity to create high quality American jobs and tackle climate chaos by delivering on President Biden's goal of cutting our greenhouse gas emissions in half by 2030. In order to achieve this ambitious goal and avert the worst impacts of climate chaos, we must invest in truly clean energy and reject empty promises from the fossil fuel industry. Hydrogen has been touted as a "zero-emission," alternative energy source in our clean energy transition, but recent peer reviewed science has found that fossil fuel-based hydrogen might have greater greenhouse gas impacts than traditional fossil fuels. As policymakers, we must be attentive to the reality that not all hydrogen is clean and reject efforts to further subsidize dirty hydrogen in the Build Back Better Act.

The vast majority of Americans recognize the existential threat posed by climate change, and support a rapid transition to 100% clean, renewable energy.² Clean hydrogen may have an important role to play in decarbonizing sectors of our economy where it would be extremely difficult to do so with other technologies. There's just one problem: current hydrogen production is not at all "clean." In fact, 95% of hydrogen produced in the U.S. comes from fossil fuels.

When fossil fuel-based hydrogen is paired with carbon capture and storage (CCS) technology to trap emissions, it is referred to as "blue hydrogen." "Green hydrogen," made from 100% renewable energy by splitting water into hydrogen and oxygen molecules accounts for less than 0.02% of global hydrogen production. Blue hydrogen may have a larger greenhouse gas footprint than natural gas, coal, or diesel on a life-cycle basis, according to a recent peer-reviewed study by researchers from Cornell University and Stanford University. In fact, blue hydrogen production may result in higher methane emissions than natural gas, diesel, oil, and coal. This is an extremely important finding because "we cannot achieve the Paris Agreement targets without immediately reducing methane," according to a United Nations report published this year.⁵

Hydrogen produced through steam methane reformation emits health-harming pollutants such as nitrogen oxides, particulate matter, carbon monoxide and volatile organic compounds.⁶ The burning of hydrogen is also a significant source of nitrogen oxides, which contributes to respiratory and heart diseases. The expansion of fossil-fuel based hydrogen would inevitably harm disproportionately low-income communities and communities of color because these are the same communities which have carried the weight of fossil fuel pollution for generations.

¹From 2005 levels https://www.whitehouse.gov/briefing-room/statements-releases/2021/04/22/fact-sheet-president-biden-sets-2030-greenhouse-gas-pollution-reduction-target-aimed-at-creating-good-paying-union-jobs-and-securing-u-s-leadership-on-clean-energy-technologies/

² https://www.axios.com/poll-biden-clean-energy-0c4ef8e0-873d-4c55-b27d-8fabdbd7aa89.html

³ https://irena.org/-/media/Files/IRENA/Agency/Publication/2020/Dec/IRENA Green hydrogen cost 2020.pdf

⁴ https://onlinelibrary.wiley.com/doi/full/10.1002/ese3.956

⁵ https://www.unep.org/resources/report/global-methane-assessment-benefits-and-costs-mitigating-methane-emissions

⁶ https://earthjustice.org/sites/default/files/files/hydrogen_earthjustice_2021.pdf

As we look to make significant investments in our clean energy future, we need to ensure that we are not investing in energy sources that could worsen greenhouse gas emissions. False solutions have already cost us precious time in our fight against climate chaos. We cannot afford to subsidize hydrogen production with a carbon footprint worse than that of coal or natural gas. Thank you for your attention to this issue as we work towards a truly clean energy future.

Sincerely,

Jeffrey A. Merkley United States Senator

Jamie Raskin

Member of Congress

Edward J. Markey United States Senator

Elizabeth Warren United States Senator Jan Schakowsky Member of Congress

Andy Jeni

Andy Levin Member of Congress Eleanor Holmes Norton

Member of Congress

Jamaal Bowman, Ed.D. Member of Congress

Karkeda Flail

Rashida Tlaib Member of Congress Alexandria Ocasio-Cortez Member of Congress

Mondaire Jones Member of Congress

Jerrold Nadler Member of Congress Jesús G. "Chuy" García Member of Congress

Cori Bush Member of Congress Jared Huffman

Member of Congress

Bonni Watsur Coleman

Mark Jahan Barbare Mark Takano

Member of Congress

Barbara Lee

Member of Congress

Bonnie Watson Coleman Member of Congress

Ayanna Pressley Member of Congress